San Juan Islands GRP **Booming Strategies** Sucia Island SUC-4 Matia Island SUC-2 Waldron Island WAL-6 Stuart Island Orças Island Rosario STU-9a JON-24 HEN-23 Jones SJI-19b Channel CYP-55 Cypress SJI-17 Island Haro Island Strait LOP-36 SJI-16 LOP-47 LOP-48a Lopez Sound JAM-54 James Island Fidalgo Griffin Bay Rosario Strait LOP-46 LOP-41 Strait of LOP-45 Juan de Fuca LOP-42 January 2002 LOP-43

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SUC-1 (O-11)	Field Visit 10/97	48°-45.815'N	Exclusion - Close off west end of Echo Bay.	2700'	Deploy boom across the west end of Echo Bay to protect the coves and sandy beaches. Rock anchors have been installed at the high and low tide lines on the north side of the bay. The anchors are on the east side of the rocky point that marks the east side of the entrance to the cove in the northwest corner of Echo Bay.	(SNJ1196), or from Friday	By boat from Anacortes, Bellingham, or Friday Harbor. No vehicle access.	State Park. Seabirds, archeological sites, sensitive bird nesting species, eelgrass beds, herring spawning, and seal haulouts.				
SUC-2 (O-10)	Field Visit 10/97	Fossil Bay (Southeast side of Sucia Island) SNJ0969 48°-44.885'N 122°-53.700'W	Exclusion - Close off entrance to bay.	1200'	Deploy boom across entrance to bay. Rock anchors have been installed at the high and low tide lines on the west side of the entrance.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes, Bellingham, or Friday Harbor. No vehicle access.	State Park. Seabirds, archeological sites, sensitive bird nesting species, eelgrass beds, herring spawning, and seal haulouts.				

January 2002 Page 1

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SUC-3a	Field Visit 10/97	Mud Bay - Northwest Opening (Inside Fossil Bay) SNJ0970 48°-45.145'N 122°-54.115'W	Exclusion - Close off northwest entrance to bay.	200'	Deploy boom across northwest entrance to bay, from the dock on Sucia Island to Herndon Island.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes, Bellingham, or Friday Harbor. No vehicle access.	State Park. Seabirds, archeological sites, sensitive bird nesting species, eelgrass beds, herring spawning, and seal haulouts.				
SUC-3b	Field Visit 10/97	Mud Bay - Southeast Opening (Inside Fossil Bay) SNJ0968 48°-45.090'N 122°-53.950'W	Exclusion - Close off southeast entrance to bay.	200'	Deploy boom across southeast entrance to bay, from Herndon Island to Wiggins Head.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes,	State Park. Seabirds, archeological sites, sensitive bird nesting species, eelgrass beds, herring spawning, and seal haulouts.				

Page 2 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SUC-4	New strategy 6/01	Fox Cove (Southwest corner of Sucia Island) SNJ0967 48°-45.170'N 122°-54.750'W	Exclusion - Close off entrance to cove.	900'	Deploy boom across entrance to cove. Rock anchors have been installed at the high and low tide lines on the south side of the entrance. The high tide anchor is at the tip of the point, and the low tide anchor is NE of the high tide anchor.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes, Bellingham, or Friday Harbor. No vehicle access.	State Park. Seabirds, archeological sites, sensitive bird nesting species and seal haulouts.				
SUC-5 (O-8)	Field Visit 10/97	Shallow Bay (West side of Sucia Island) SNJ0963 48°-45.785'N 122°-55.175'W	Exclusion - Close off entrance to bay.	1200'	Deploy boom across entrance to Shallow Bay. Rock anchors have been installed at the high tide line on the north side of the entrance, and at the low tide line on the south side of the entrance.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes, Bellingham, or Friday Harbor. No vehicle access.	State Park. Seabirds, archeological sites, sensitive bird nesting species and seal haulouts.				

Page 3 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
WAL-6 (O-12)	Field test 4/99	Mail Bay (East side of Waldron Island) SNJ1028 48°-42.080'N 123°-0.410'W	Exclusion - Close off entrance to bay.	2000'	Deploy boom from the small rocky point south of the bay at an angle to the NE to the point between Otter Cove and Mail Bay.	Stage from Brandt's Marina next to the Orcas Island Airport (SNJ0924), the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Anacortes,	Crabs and kelp beds, abalone, sea urchins, archaeological sites.				
STU-7 (SJ-20)	Field test 11/97		Exclusion - Keep oil out of harbor.	1600'	Deploy boom in a chevron configuration, from Charles Point to Satellite Island. The apex of the chevron can point to the north or south, depending on conditions and whichever is most feasible.	Stage from the Deer Harbor County dock (SNJ1196), Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. No vehicle access.	Baitfish, oysters, clam beaches and beds, dungeness crab, and State Park.				
STU-8 (SJ-19)	Field test 11/97		Exclusion - Keep oil out of harbor.	1200'	Deploy boom from the southern tip of Satellite Island to the closest point on Stuart Island. Use extreme caution, numerous unmarked shallow rock reefs.	Friday Harbor,	By boat from Friday Harbor, Roche Harbor, or Anacortes. No vehicle access.	Baitfish, oysters, clam beaches and beds, dungeness crab, and State Park.				

Page 4 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
STU-9a (SJ-17)	Field test 11/97	Reid Harbor - West Entrance (South side of Stuart Island) SNJ1083 & SNJ1099 48°-39.675'N 123°-10.565'W	Exclusion - Keep oil out of harbor.	1800'	Deploy boom in a chevron configuration, from the west side of Gossip Island, west to Stuart Island. The apex of the chevron can point to the north or south, depending on conditions and whichever is most feasible.	Stage from the Deer Harbor County dock (SNJ1196), Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. No vehicle access.	Baitfish, oysters, clam beaches and beds, dungeness crab, and State Park.				
STU-9b (SJ-17)	Field test 11/97	Reid Harbor - East Entrance (South side of Stuart Island) SNJ1099 48°-39.825'N 123°-10.305'W	Exclusion - Keep oil out of harbor.	300'		Stage from the Deer Harbor County dock (SNJ1196), Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. No vehicle access.	Baitfish, oysters, clam beaches and beds, dungeness crab, and State Park.				
SJI-10 (SJ-8)	Field Visit 4/99	Neil Bay - Inside Davison Head (North end of San Juan Island, northeast of Roche Harbor) SNJ0119 48°-37.310'N 123°-8.585'W	Exclusion - Keep oil out of Neil Bay.	1000'	Deploy boom from point on the south shore of the bay entrance across to the north shore.	Stage from Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the west end of the bay, from Friday Harbor ferry, go north on Roche Harbor Road.	Seabird concentrations, eelgrass beds, and sea urchins.				
SJI-11 (SJ-13)	New Strategy 9/01	UW Friday Harbor Marine Laboratories SNJ0072 48°-32.720'N 123°-0.735'W	Exclusion - Keep oil off shoreline and docks for lab.	800'	Deploy boom from points on each side of the dock and enclose the dock.	Stage from the laboratory parking lot, or from Friday Harbor Marina or Shipyard Cove Marina.	By boat from Friday Harbor or Anacortes. Vehicle access from Friday Harbor on the road to the Friday Harbor Labs.	University of Washington marine preserve.				

Page 5 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SJI-12 (SJ-14)	Field Visit 5/99		Exclusion - Keep oil out of cove.	900'	Deploy boom across entrance to cove.	Stage from Friday Harbor Marina or Shipyard Cove Marina.	By boat from Friday Harbor or Anacortes. Vehicle access from Friday Harbor on the road to the Friday Harbor Labs.	University of Washington preserve in cove and some wildlife concentrations.				
SJI-13 (SJ-6)	Field Test 1997	Argyle Lagoon - North Bay (East side of San Juan Island) SNJ0031 48°-31.160'N 123°-0.840'W	Exclusion - Keep oil out of lagoon.	500'	Deploy boom across outer lagoon entrance.	Stage at the boat ramp at the end of Jackson Beach Road, or from Friday Harbor or Anacortes.	Anacortes or Friday Harbor. Vehicle access from Friday	Wetlands, UW lab, lagoon, bird and baitfish habitat, harbor seal haulout, sensitive nesting species, diving ducks, herons, loons, and geoducks.				
SJI-14 (SJ-7)	Field Test 1997		Exclusion - Keep oil out of lagoon.	100'	Most of the year, a gravel bar across the entrance of the lagoon is too high for oil to enter the lagoon, but winter storms may form openings in the bar. Contact the National Park to determine status of opening. Place boom across opening, or block with logs, etc.	parking area above the lagoon, or from	By boat from Anacortes or Friday Harbor. Vehicle access from Friday Harbor on Argyle Ave to Cattle Point Road to a parking lot above the lagoon, must get permission from the National Park to take an all terrain vehicle down to lagoon.	Wetlands, bird and baitfish habitat, harbor seal haulouts, sensitive nesting species diving ducks, herons, loons.				

Page 6 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
SJI-15 (SJ-11)	Field test 5/97	False Bay (Southwest side of San Juan Island) SNJ0292 48°-28.875'N	Exclusion/ Collection - Keep oil out of bay or divert oil to collection point on beach where it can be recovered.	2300'	Deploy 2000' of boom at an angle across the entrance of the bay. May be possible to collect oil at a small pocket beach on the east side (SNJ0300). Use the remaining 300' of boom to direct the oil to the collection site.	Stage from parking area at head of bay, or from Friday Harbor or Anacortes.	By boat from Anacortes or Friday Harbor. Vehicle access to Kanaka Point (west side of bay) from False Bay Road to Bailer Hill Road to Kanaka Bay Road. Access to the beach on the east side from False Bay Road through the Mar Vista Resort (call for access 360-378-4448).				
	New Strategy 9/01		Exclusion - Keep oil out of bay.	400'	Deploy boom across the entrance to the bay.	Stage from the county park parking lot, or from Friday Harbor, Roche Harbor, or Anacortes.	By boat from a small ramp at the county park, Friday Harbor, Roche Harbor, or Anacortes. Vehicle access from Friday Harbor ferry, go west on Beaverton Valley Road to West Valley Road to Mitchell Bay Road to West Side Road.	San Juan County Park, heavily used public recreational area; waterfowl concentrations.			

Page 7 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SJI-17 (SJ-4)	Field Test 5/97		Exclusion - Keep oil out of bay.	1600'	Deploy boom across the outer bay entrance. If conditions do not permit deployment as described, fall back into the bay and deploy 1000' of boom from the point on the north shore directly north of the marina to the south shore west of the marina.	Stage from the Mitchell Bay Marina, or from Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Mitchell Bay Marina (SNJ0192), from Friday Harbor ferry, go west on Beaverton Valley Road to West Valley Road to Mitchell Bay Road.	Waterfowl concentrations, baitfish, archeological sites, and dungeness crab.				
SJI-18 (SJ-4)	Field Test 5/97		Exclusion - Keep oil out of the inner bay.	500'	Deploy boom across the inner bay entrance. Angle boom to north shoreline on point for possible collection from private property.	Stage from the Mitchell Bay Marina, or from Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Mitchell Bay Marina (SNJ0192), from Friday Harbor ferry, go west on Beaverton Valley Road to West Valley Road to Mitchell Bay Road.	Waterfowl concentrations, baitfish, archeological sites, and dungeness crab. Mudflat and tidal marsh habitat.				

Page 8 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
SJI-19a (SJ-1)	Field test 9/98	SNJ0138 48°-35.385'N	Deflection/ Collection - Keep oil out of Westcott and Garrison Bays.	2400'	Deploy boom in three chevrons with the apex pointing into Westcott Bay. Deploy the first chevron just inside the entrance using 400' on each leg with an apex angle of about 35 degrees. Deploy two similar chevrons further inside the entrance. Current through the entrance is strong during flood tide, but the first two chevrons will slow the oil enough so collection with a skimmer will be effective at the apex of the third chevron.	Stage from Friday Harbor, Roche Harbor, or Anacortes. Potential staging from Westcott Bay SeaFarm.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Westcott Bay SeaFarm dock (SNJ0154), from Friday Harbor ferry, go north on Roche Harbor Road.	Seabirds, waterfowl, seals, clam beds, dungeness crab, oysters, herring spawning, and archeological sites.			
SJI-19b (SJ-1)	Field test 9/98	Garrison Bays) SNJ0138 48°-35.435'N	Deflection - Deflect oil out into center of channel for collection at SJI-19a.	200'	Deploy boom from the end of White Point to deflect the oil out to the collection strategy.	Stage from Friday Harbor, Roche Harbor, or Anacortes. Potential staging from Westcott Bay SeaFarm.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Westcott Bay SeaFarm dock (SNJ0154), from Friday Harbor ferry, go north on Roche Harbor Road.	Westcott and Garrison Bays resources. Seabirds, waterfowl, seals, clam beds, dungeness crab, oysters, herring spawning, and archeological sites.			
SJI-19c (SJ-1)	Field test 9/98	Garrison Bays) SNJ0175 48°-35.305'N	Deflection - Deflect oil out into center of channel for collection at SJI-19a.	400'	Deploy boom from the end of Delacombe Point to deflect the oil out to the collection strategy.	Stage from Friday Harbor, Roche Harbor, or Anacortes. Potential staging from Westcott Bay SeaFarm.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Westcott Bay SeaFarm dock (SNJ0154), from Friday Harbor ferry, go north on Roche Harbor Road.	Westcott and Garrison Bays resources. Seabirds, waterfowl, seals, clam beds, dungeness crab, oysters, herring spawning, and archeological sites.			

Page 9 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
SJI-20 (SJ-10)	Field test 9/98	(west side) 48°-35.350'N	Exclusion/ Deflection/ Collection - Keep oil out of bay.	1300'	Deploy boom in a chevron configuration at the entrance to the bay, from the west shore of Bell Point to the opposite shoreline to the west. Deploy with the apex pointing into Garrison Bay, and collect at the apex with a skimmer during flood tide.	Stage from Friday Harbor, Roche Harbor, or Anacortes. Potential staging from Westcott Bay SeaFarm.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Westcott Bay SeaFarm dock (SNJ0154), from Friday Harbor ferry, go north on Roche Harbor Road.	Garrison Bay resources. National Park (English Camp). Seabirds, waterfowl, seals, clam beds, dungeness crab, oysters, herring spawning, and archeological sites.			
SJI-21 (SJ-3)	Field test 9/98	Point) 48°-35.735'N	Exclusion/ Deflection/ Collection - Keep oil out of bay.	2300'	Deploy boom in a chevron configuration at the entrance to the bay from the north tip of Bell Point to the northeast shore of White Point. Deploy with the apex pointing into Westcott Bay, and collect at the apex with a skimmer during flood tide.	Stage from Friday Harbor, Roche Harbor, or Anacortes. Potential staging from Westcott Bay SeaFarm.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the Westcott Bay SeaFarm dock (SNJ0154), from Friday Harbor ferry, go north on Roche Harbor Road.	Westcott Bay resources. Seabirds, waterfowl, seals, clam beds, dungeness crab, oysters, herring spawning, and archeological sites.			
SJI-22 (SJ-23)	Field Visit 4/99		Exclusion - Keep oil out of tidal marsh.	300'	Deploy boom across the entrance to the tidal marsh south of the Roche Harbor Marina.	Stage from the Roche Harbor Marina, or from the boat ramp parking lot on the east side of the marsh entrance.	By boat from Friday Harbor, Roche Harbor, or Anacortes. Vehicle access to the east side of the marsh, from Friday Harbor ferry, go north on Roche Harbor Road.	Herring spawning, marsh habitat, waterfowl.			

Page 10 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
HEN-23 (SJ-5)	Field test 10/97	Nelson Bay (Henry Island, NW corner of San Juan Island) SNJ0206 48°-36.275'N 123°-10.705'W	Exclusion - Keep oil out of bay.	1400'	Deploy boom in a chevron configuration at the entrance to the bay.	Stage from Friday Harbor, Roche Harbor, or Anacortes.	By boat from Friday Harbor, Roche Harbor, or Anacortes. No vehicle access.	Wetlands, waterfowl habitat, baitfish, dungeness crab, and eelgrass beds.			
JON-24	Field Visit 8/01	Jones Island - North Side Cove (West of Orcas Island) SNJ1367 48°-37.130'N 123°-2.785'W	Exclusion - Keep oil out of the cove.	1000'	Deploy boom across the narrowest point of the entrance to the cove on the north side of the island. Attach boom to shore or trees, and anchor to maintain position.	Stage from Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes. No vehicle access.	State Park public recreational area.			
JON-25	Field Visit 8/01	Jones Island - South Side Cove (West of Orcas Island) SNJ1372 48°-36.700'N 123°-2.715'W	Exclusion - Keep oil out of the cove.	1500'	Deploy boom to protect both small coves on the south side of the island. Very exposed. If unable to protect both coves, pull back and try to protect the cove to the west.	Stage from Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes. No vehicle access.	State Park public recreational area.			
ORC-26	New Strategy 9/01	Deer Harbor - Cove on the West side of the Harbor (Southwest side of Orcas Island) SNJ1189 48°-37.325'N 123°-0.405'W	Exclusion - Keep oil out of the cove.	500'	Deploy boom across the entrance to the cove.	Stage from the Deer Harbor County dock (SNJ1196), or from Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes. Vehicle access from Orcas Island ferry, go west and north from the ferry to the Horseshoe Highway, then go west on Deer Harbor Road to Deer Harbor.	Waterfowl concentrations, small stream at the head of the cove.			

Page 11 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
ORC-27 (O-6)	Field test 11/97	of Orcas Island) SNJ1190 48°-37.475'N	Exclusion/ Collection - Keep oil out of inner harbor/ lagoon, collect with vac truck at road.	800'	Deploy boom from the west side of the harbor just south of the bridge at an angle to the southeast to the east side of the harbor. Collect oil with a vac truck from the road on the west side of the harbor.	on west side of	By boat from Friday Harbor or Anacortes. Vehicle access from Orcas Island ferry, go west and north from the ferry to the Horseshoe Highway, then go west on Deer Harbor Road to Deer Harbor.	Dungeness crab, oysters, sea urchins, and mudflats.			
ORC-28 (O-2)	Field test 5/98		Exclusion - Keep oil out of bay.	1400'	Deploy boom in a chevron configuration from the dock on the west side to the Johnston's property on the east side. This location keeps the boom in water even at low tide, most of bay becomes a mudflat at low tide. Be aware of two pinnacle rocks near the entrance of the bay.	Stage from the parking area at the dock in Olga, or from Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes. Vehicle access from Orcas Island ferry, go west and north from the ferry to the Horseshoe Highway and follow to Olga and Buck Bay.	Dungeness crab, clam beds, and mudflat habitat.			
SHA-29a (SH-4)	Field Test 9/99	Blind Bay - West Opening (North side of Shaw Island) SNJ0368 48°-35.085'N 122°-56.385'W	Exclusion - Keep oil out of bay.	1000'	Deploy boom from the west side of Blind Island to pilings at a dock on Shaw Island. Be aware of shallow rocks just north of the booming location (site of numerous groundings).	Stage from Bayhead Marina on Orcas Island just east of the ferry dock.	By boat from Friday Harbor or Anacortes. Vehicle access to the Shaw Island ferry terminal.	Seabirds, diving ducks, herring and smelt spawning, sandlance larvae, dungeness crab and sea urchins.			

Page 12 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
SHA-29b (SH-4)	Field Test 9/99	Blind Bay - East Opening (North side of Shaw Island) SNJ0358 48°-35.070'N 122°-56.035'W	Exclusion - Keep oil out of bay.	1800'	Deploy boom from a piling south and west of the Shaw Island Ferry Dock to the east side of Blind Island. Also run boom from piling to shore to close short gap. Boom can be deployed in a chevron configuration with the apex pointing into or out of the bay, depending on conditions and whichever is most feasible.	Stage from Bayhead Marina on Orcas Island	By boat from Friday Harbor or Anacortes. Vehicle access to the Shaw Island ferry terminal.	Seabirds, diving ducks, herring and smelt spawning, sandlance larvae, dungeness crab and sea urchins.				
SHA-30 (SH-3)	Field Test 9/99	Picnic Cove (Southeast side of Shaw Island) SNJ0345 48°-33.840'N 122°-55.280'W	Exclusion - Keep oil out of Picnic Cove.	1000'	Deploy boom across entrance to Picnic Cove, shoreline is private property.	Stage from the county park beach in Indian Cove, or Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes.	Archeological sites, dungeness crab.				
SHA-31 (SH-2)	Field Test 9/99	Indian Cove (Southeast side of Shaw Island) SNJ0336 48°-33.735'N 122°-56.265'W	Exclusion - Keep oil out of cove.	2000'	Deploy boom to protect the shoreline in the northwest corner of Indian Cove (South Beach area).		By boat from Friday Harbor or Anacortes. Vehicle access from the Shaw Island ferry terminal on Blind Bay Road to Squaw Bay Road.	Archeological sites, dungeness crab, Shaw County park.				
SHA-32 (SH-1)	Field Test 9/99	Squaw Bay (Southeast side of Shaw Island) SNJ0333 48°-33.480'N	Exclusion/ Deflection/ Collection - Keep oil out of bay. Deflect oil to east shore for collection.	1000'	Deploy boom at an angle across the entrance to the bay from a sandy beach on the west side of the entrance, northeast to the east shore of the entrance. The boom on the east shore can be placed so it will deflect oil into a small cove on the east shore for collection with a skimmer.	Stage from the road at the head of the bay (SNJ0332), or Friday Harbor or Anacortes.	By boat from Friday Harbor or Anacortes. Vehicle access from the Shaw Island ferry terminal on Blind Bay Road to Squaw Bay Road.	Dungeness crab, oysters, archeological sites, shore birds, waterfowl, and tideflats.				

Page 13 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
SHA-33 (SH-5)	Field Test 4/99	Parks Bay (Southwest side of Shaw Island) SNJ0403 48°-33.850'N 122°-59.070'W	Exclusion - Keep oil out of bay.	2000'	Deploy boom near outer entrance to Parks Bay from the small island at the north end of the bay to the north end of the Point George Peninsula. The pass on the north side of the island is open only on a very high tide, boom if necessary with 100'. Strong currents run north and south past the entrance to the bay, and currents moving in and out of the bay are gentle. Oil would tend to move past the bay, and would only be pushed into the bay by the wind.	Stage from Friday Harbor or Anacortes.	By boat from Friday Harbor, Anacortes or Bellingham.	Archeological sites, shorebirds, waterfowl, tidal flats, and dungeness crab.			
LOP-34 (L-1)	Field Visit 3/96	Shoal Bay Lagoon (Northeast side of Lopez Island) SNJ0559 48°-33.200'N 122°-52.370'W	Exclusion - Keep oil out of the lagoon at the southeast end of Shoal Bay.	100'	Deploy boom in front of the lagoon culvert. Blocking the culvert with boards, sandbags, etc. would be more effective.	Stanley Road, or at the gravel pit	Vehicle access from the Lopez Island ferry terminal on Ferry Road to Port Stanley Road, or by boat from Friday Harbor or Anacortes.	Seabirds, diving ducks, herring, smelt, sandlance larvae, and dungeness crab.			
LOP-35 (L-2)	Field Visit 3/96	Swift Bay Lagoon (Northeast side of Lopez Island) SNJ0546 48°-32.500'N 122°-52.440'W	Exclusion - Keep oil out of the lagoon at the south end of Swift Bay.	100'	culvert. Blocking the culvert with boards, sandbags, etc. would be more	Stanley Road, or at the gravel pit	Vehicle access from the Lopez Island ferry terminal on Ferry Road to Port Stanley Road, or by boat from Friday Harbor or Anacortes.	Seabirds, diving ducks, brant feeding area, and dungeness crab.			

Page 14 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
LOP-36 (L-3)	Field Visit 3/96	Spencer Spit Lagoon (Northeast side of Lopez Island) SNJ0541 48°-32.245'N 122°-51.410'W	Exclusion - Keep oil out of the lagoon on Spencer Spit.	100'	Deploy boom in front of the lagoon entrance. Blocking the entrance with boards, sandbags, etc. would be more effective.		Vehicle access from the Lopez Island ferry terminal on Ferry Road to Port Stanley Road to the Spencer Spit State Park, or by boat from Friday Harbor or Anacortes.	Seabirds, brant feeding area, clam beds, tidal marsh.				
LOP-37 (L-5)	Field Visit 7/99	Hunter Bay (Southeast side of Lopez Island) SNJ0502	Exclusion/ Collection - Keep oil out of bay. Use currents to aid in collection.	3500'	boom parallel to the shoreline.		By boat from the county dock and ramp, Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Islandale Road.	Seabirds, diving ducks, archaeological sites, smelt, herring, sandlance larvae, and dungeness crab.				

Page 15 January 2002

Strate State	tus Location	Response Strategy	Length of Boom				
			Doom	Strategy Implementation	Staging Area	Site Access	Resources Protected
LOP-38a Field (L-6) Test	Mud Bay - From the West Shore to Crab Island (Southeast side of Lopez Island) SNJ0502 Id 48°-27.650'N at 7/99 122°-50.740'W	Exclusion - Keep	800'	Deploy boom from Crab Island to the county dock on the west shore. Oil moving past the county dock will be directed to the booms east of Crab	Stage from the county dock at the southeast corner of Hunter Bay, or from Anacortes, Friday Harbor,	By boat from the county dock and ramp, Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Islandale Road.	Seabirds, diving ducks, archaeological sites, smelt, herring spawning, sand lance larvae, and dungeness crab.
LOP-38b Field (L-6) Test	Mud Bay - From Crab Island to Fortress Island (Southeast side of Lopez Island) SNJ0484 Id 48°-27.810'N at 7/99 122°-50.450'W	Exclusion - Keep	1800'	Crab Island. Oil moving past the county dock and Crab Island will be directed to this boom for collection	Stage from the county dock at the southeast corner of Hunter Bay, or from Anacortes, Friday Harbor,	By boat from the county dock and ramp, Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Islandale Road.	Seabirds, diving ducks, archaeological sites, smelt, herring spawning, sand lance larvae, and dungeness crab.

Page 16 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
LOP-38c (L-6)	Field Test 7/99		Exclusion - Keep oil out of the bay.	1700'	Deploy boom from Fortress Island to the shore on the Sperry Peninsula. Oil entrained under the boom between Crab Island and Fortress Island may circle around the bay and move north to this boom.	Bay, or from Anacortes, Friday Harbor,	the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to	Seabirds, diving ducks, archaeological sites, surf smelt, herring spawning, sand lance larvae, and dungeness crab.				
LOP-39 (L-7)	New strategy 8/01	Mud Bay - Backup for LOP-38 SNJ0496	Exclusion - Keep oil out of the bay.	2500'	Deploy boom from the north shore of the bay at 48°-27.050'N 122°-51.070'W (SNJ0498) to the south shore at 48°-26.920'N 122°-50.515'W (SNJ0494).	Bay, or from Anacortes, Friday Harbor,	By boat from the county dock and ramp, Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Islandale Road.	Seabirds, diving ducks, archaeological sites, surf smelt, herring spawning, sand lance larvae, and dungeness crab.				

Page 17 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
LOP-40 (L-8)	New strategy 8/01	Mud Bay - Backup for LOP-38 (Mud Bay side of Shoal Bight) SNJ0488 48°-27.705'N 122°-49.745'W	Exclusion - Keep oil out of the bay.	2100'	Deploy boom across the entrance to the cove to protect the lagoon and tidal marsh.	Stage from the county dock at the southeast corner of Hunter Bay, or from Anacortes, Friday Harbor, or Skyline Marina.	By boat from the county dock and ramp, Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Islandale Road.	Seabirds, diving ducks, archaeological sites, surf smelt, herring spawning, sand lance larvae, brant feeding area, tidal marsh, and dungeness crab.				
LOP-41 (L-7)	Field Test 9/99	Watmough Bay (Southeast corner of Lopez Island in Rosario Straits) SNJ0456 48°-25.915'N 122°-48.710'W	Exclusion - Keep oil out of the bay.	1000'	Deploy boom across bay at a point about half way into the bay. Feasibility depends on the direction and speed of the wind. This site is usually protected and the boom is easy to set.	Stage from Anacortes, Skyline Marina, or Port Angeles.	By boat from Anacortes, Port Angeles, or Skyline Marina.	Nesting and foraging seabirds, foraging and resting habiat for marbled murrelets. Sensitive nesting species site at the head of the bay.				
LOP-42 (L-8)	Field Test 9/99	Lopez Island) SNJ0443 48°-25.600'N	Exclusion/ Collection - Keep oil out of the bay, or use a a collection site.	1000'	Deploy boom across the entrance to the bay if conditions are favorable, site is exposed and often rough. Currents and wind tend to push oil into the bay. To use the bay for collection, deploy the boom out from each side of the entrance to enhance collection. Move boom across the entrance of the bay to keep the oil in the bay during ebb tide.	Stage from Anacortes, Skyline Marina, or Port Angeles.	By boat from Anacortes, Friday Harbor, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal to the beach at the head of Aleck Bay via private roads.	Nesting and foraging seabirds, foraging and resting habiat for marbled murrelets.				

Page 18 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES										
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected			
LOP-43 (L-9)	Field Test 9/99	Hughes Bay (South end of Lopez Island) SNJ0438 48°-25.730'N 122°-50.375'W	Exclusion/ Collection - Keep oil out of the bay, or use a a collection site.	1500'	Deploy boom across the entrance to the bay if conditions are favorable, site is exposed and often rough. With wind from the south or southwest, the boom can be deployed from the west side of the bay entrance to a point at the head of the bay to the north, which will protect most of the bay. Currents and wind tend to push oil into the bay. To use the bay for collection, deploy the boom out from each side of the entrance to enhance collection. Move boom across the entrance of the bay to keep the oil in the bay during ebb tide.	Stage from Anacortes, Skyline Marina,	By boat from Anacortes, Port Angeles, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal to the beach at the head of Aleck Bay via private roads.	Nesting and foraging seabirds, foraging and			
LOP-44 (L-12)	New strategy Field Tested 9/99	Aleck Bay (South end of Lopez Island) SNJ0429 48°-25.560'N 122°-51.090'W	Exclusion - Keep oil out of the bay.	1700'	Deploy boom across the narrowest point at the mouth of the bay. Aleck Bay is the least exposed of the three strategies in this area, and booming is achievable more often than for Hughes and McArdle Bays.	Skyline Marina,	By boat from Anacortes, Port Angeles, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal to the beach at the head of Aleck Bay via private roads.	Nesting seabirds, other marine bird species, sea urchins, archaeological sites.			

Page 19 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
LOP-45 (L-11)	Field Visit 4/99	Mackaye Harbor (Southwest corner of Lopez	Exclusion/ Collection - Keep oil out of the inner harbor, collect oil at the beach on the south shore.	3500'	Deploy boom from the point west of Barlow Bay on the south shore of the harbor at about 48°-26.325'N 122°-52.730'W (SNJ0664) to the point on the north shore just east of Jones Bay at about 48°-26.765'N 122°-53.205'W (SNJ0652). Oil can be collected with a vac truck from the beach of the small cove west of Barlow Bay. If conditions do not permit deployment as described, fall back into the bay and deploy 1500' of boom across the entrance of Barlow Bay.	Stage from Mackaye Harbor Road, or from Anacortes,	By boat from Anacortes, Port Angeles, or Skyline Marina. Vehicle access from the Lopez Island ferry terminal on Ferry Road to Center Road to Mud Bay Road to Mackaye Harbor Road.	Nesting seabirds, sand lance, surf smelt, sea				
LOP-46 (L-12)	Field Visit 4/99	Island) SNJ0628 48°-27.260'N	Exclusion - Keep oil out of the southeast side of the bay.	1200'	Deploy boom from rocky point due east of Buck Island to the second rocky point to the north.	_	By boat from Anacortes, Port Angeles, or Skyline Marina.	Nesting seabirds, other species, sea urchins, archaeological sites.				

Page 20 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
					Deploy boom in two cascading							
					sections to deflect oil away from the							
					bay entrance. For the first section,							
					deploy 1000' of boom from a point							
					on the shore north of the county							
					access at about 48°-31.525'N 122°-							
					5.980'W (SNJ0585) to the channel							
					navigational marker (do not attach							
					the boom to the marker). Deploy							
					1200' of boom for the second section							
					from the navigation marker to the							
					shore on the peninsula about 1500-							
					1700 feet west from the entrance							
					channel at 48°-31.310'N 122°-							
					55.445'W (SNJ0603). Overlap the							
					boom sections by about 100', with the							
					first section on the outside. Double							
					anchors should be used at the ends at							
					the marker and at the mid-point of							
					each boom. A sand auger anchor							
					should be used for the beach on the	Stage from the						
		Fishermen's Bay			peninsula. Getting the correct angle	County access	By boat from					
	F: 11	Outside entrance			on the booms and anchoring them		Fisherman's Bay	G 1: 1 1: :				
I OD 47	Field		Exclusion - Keep		well is critical to the success of this	Fisherman's Bay	ramp, or from Friday	Seabirds, diving				
LOP-47	Test 11/99	of Lopez Island) SNJ0585		2200'	strategy. Flood tide currents run	marina and boat	Harbor, Anacortes or	ducks, and				
(L-14a)	11/99		Fishermen's Bay.	2200	from north to south along shore.	ramp.	Bellingham.	archeological sites.				
		Fishermen's Bay										
		East side of			North - Deploy boom from the beach	G. G. I						
		entrance channel			on the east side of the entrance	Stage from the	D 1					
		(West side of			channel near the county access (north	_	By boat from					
	F: 11	Lopez Island)	C 11 - 2' - 77		of LOP-48b) to collect oil entering	sites or from the	Fisherman's Bay	G 1: 1 1: :				
I OP 40	Field		Collection - Keep		the bay on a flood tide. Current	Fisherman's Bay	ramp, or from Friday	Seabirds, diving				
LOP-48a	Visit	48°-31.310'N	oil out of	1001	through the channel can be very	marina and boat	Harbor, Anacortes or	ducks, and				
(L-14b)	11/99	122°-55.000'W	Fishermen's Bay.	100'	strong.	ramp.	Bellingham.	archeological sites.				

Page 21 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
		Fishermen's Bay										
		East side of			South - Deploy boom from the beach							
		entrance channel			on the east side of the entrance	Stage from the						
		(West side of			channel near the county access (south	•	By boat from					
		Lopez Island)			of LOP-48a) to collect oil entering		Fisherman's Bay					
	Field		Collection - Keep		· ·	•	ramp, or from Friday	Seabirds, diving				
LOP-48b	Visit		oil out of	4001	through the channel can be very	marina and boat	Harbor, Anacortes or	ducks, and				
(L-14b)	11/99	122°-55.025'W	Fishermen's Bay.	100'	strong.	ramp.	Bellingham.	archeological sites.				
		Fishermen's Bay										
		Small cove to the			Necessary only if LOP-47 cannot be							
		north on the west			deployed or is unlikely to exclude oil							
		side of the			from the bay due to strong flood tide							
		entrance channel			currents, or winds from the north or	Stage from the						
		(West side of			west. Deploy boom across the mouth		By boat from					
		Lopez Island)			of the cove from north to south to	sites or from the	Fisherman's Bay					
	Field	SNJ0603			keep oil out of the cove and to direct	Fisherman's Bay	ramp, or from Friday	Seabirds, diving				
LOP-49	Test	48°-31.220'N	Exclusion - Keep		oil through the entrance channel for	marina and boat	Harbor, Anacortes or	ducks, and				
(L-14c)	11/99	122°-55.185'W	oil out of the cove.	1000'	collection at LOP-51.	ramp.	Bellingham.	archeological sites.				
		Fishermen's Bay										
		Small cove to the			Necessary only if LOP-47 cannot be							
		south on the west			deployed or is unlikely to exclude oil							
		side of the			from the bay due to strong flood tide							
		entrance channel			currents, or winds from the north or	Stage from the						
		(West side of			west. Deploy boom across the mouth	_	By boat from					
		Lopez Island)			of the cove from northwest to	sites or from the	Fisherman's Bay					
	Field	SNJ0602			southeast to keep oil out of the cove		ramp, or from Friday	Seabirds, diving				
LOP-50	Visit		Exclusion - Keep		-	•	Harbor, Anacortes or	ducks, and				
(L-14c)	11/99	122°-55.140'W	oil out of the cove.	1000'	channel for collection at LOP-51.	ramp.	Bellingham.	archeological sites.				

Page 22 January 2002

		SAN	JUAN ISLAND	S PROPO	SED BOOMING AND COLL	ECTION STI	RATEGIES	
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected
LOP-51 (L-14d)	Field Visit 11/99	Fishermen's Bay Collection inside bay (West side of Lopez Island) SNJ0588 48°-30.900'N 122°-54.770'W	Diversion/ Collection - Divert oil to a collection site on shore.	1000'	Necessary only if LOP-47 cannot be deployed or is unlikely to exclude oil from the bay due to strong flood tide currents, or winds from the north or west. Deploy boom from the boat ramp north of the Fisherman's Harbor Marina to the northwest to collect oil moving through the entrance channel. Deployment may be difficult if tidal currents are strong	sites or from the	By boat from Fisherman's Bay ramp, or from Friday Harbor, Anacortes or Bellingham.	Seabirds, diving ducks, and archeological sites.
LOP-52 (L-14e)	Field Visit 11/99	Fishermen's Bay Lagoon at the south end of the bay (West side of Lopez Island) SNJ0598 48°-30.460'N 122°-55.870'W	Exclusion - Keep oil out of the lagoon.	1000'	Deploy boom across the entrance to the lagoon. Access may be difficult, much of the entrance is a mudflat at low tide.		By boat from Fisherman's Bay ramp, or from Friday Harbor, Anacortes or Bellingham.	Seabirds, diving ducks, and archeological sites.
JAM-53	Field Visit 8/01	James Island - West Side Cove (East of Decatur Island) SNJ0707 48°-30.700'N 122°-46.695'W	Exclusion - Keep	1400'	Deploy boom across the narrowest part of the entrance to the cove on the west side of the island, from the point at the south end, directly north to the point at the north end. Attach boom to the shore or trees, and anchor to maintain position.		By boat from Anacortes or Skyline Marina. No vehicle access.	State Park public recreational area.
JAM-54	Field Visit 8/01	James Island - East Side Cove (East of Decatur Island) SNJ0703 48°-30.795'N 122°-46.405'W	Exclusion - Keep oil out of the cove.	1000'	Deploy boom across the narrowest part of the entrance to the cove on the east side of the island, from the point at the south end, northwest to the shore at the north end. Attach boom to the shore or trees, and anchor to maintain position.	Stage from Anacortes or Skyline Marina.	By boat from Anacortes or Skyline Marina. No vehicle access.	State Park public recreational area.

Page 23 January 2002

	SAN JUAN ISLANDS PROPOSED BOOMING AND COLLECTION STRATEGIES											
Strategy	Status	Location	Response Strategy	Length of Boom	Strategy Implementation	Staging Area	Site Access	Resources Protected				
CYP-55	Field Visit 8/01	Eagle Harbor (Northeast Side of Cypress Island) SKA0185 48°-35.360N 122°-41.835'W	Exclusion - Keep oil out of the harbor.	1300'	Deploy boom from the ramp on the west shoreline. No attachment point is available at the east bluff; anchor the boom in as near as possible to the bluff.	Stage from from Anacortes or Bellingham.	By boat from Anacortes or Bellingham.	Feeding habitat for marbled murrelets, eelgrass beds.				
CYP-56	Field Visit 8/01	Secret Harbor (Southeast Side of Cypress Island) SKA0164 48°-33.350N 122°-41.360'W	Exclusion - Keep oil out of the harbor.	1000'	Deploy boom across the narrowest part of the entrance to the harbor, from the rocky point on the south side of the harbor, directly north to the north shore. Attach boom to the shore or trees, and anchor to maintain position.	Stage from from Anacortes or Bellingham.	By boat from Anacortes or Bellingham.	Feeding habitat for marbled murrelets, eelgrass beds.				

Page 24 January 2002